

The South Carolina Energy Office (SCEO) is partnering with the US Department of Energy (DOE) Million Solar Roofs (MSR) Initiative to encourage communities and businesses to install one million solar energy systems throughout the nation by 2010. South Carolina has committed to seeing over 500 systems installed by 2010.

The initiative assists states to develop partnerships between state agencies, the solar industry, the building community, local governments, electric service providers, and non-governmental organizations to determine what the barriers are, how to overcome them, and to assist in strengthening the demand for the implementation of proven solar technologies.

The initiative includes two types of solar technologies: (1) solar thermal systems, which produce heat for domestic hot water, swimming pools, and space conditioning; and (2) photovoltaic systems, which convert sunlight into electricity.



### Program Funding

The SCEO submitted a Special Project proposal to DOE in 2001 to develop a South Carolina MSR Partnership.

In cooperation with York Technical College's Energy Resource Center, the MSR Implementation Plan was developed for the state. The plan addressed means through which SC would achieve its goal of 500 or more solar systems installed in the state by 2010. It also identified key barriers that the solar industry faces in SC, and created a methodology for overcoming the barriers.

The barriers include:

- · Lack of knowledge;
- · Initial cost;
- · No tax incentives; and
- · Lack of net metering.

The SCEO received funding for a second grant in September 2003.

Specific objectives for SC's current MSR Initiative grant include: development of a SC Chapter of the American Solar Energy Society (ASES); creation and execution of an education and marketing program to increase knowledge and acceptance of solar technologies in SC; and determination of means to finance solar systems.

The SC MSR Initiative Partnership is supported by the US Dept. of Energy through a grant to the South Carolina Energy Office
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Visit us at: www.energy.sc.gov

## A Few Benefits of Solar Energy

- FINANCIAL SAVINGS: Solar can reduce monthly utility bills.
- RELIABLE: Solar energy is often chosen for systems that must remain operational at all times. PV systems may prevent costly or dangerous power failures in situations where continuous operation is crucial.
- ➤ <u>DURABLE</u>: Solar systems will produce hot water or power for 25 years or longer with very little degradation in performance.
- ➤ <u>CLEAN</u>: Solar energy systems produce absolutely no emissions while generating electricity or heating water.
- > <u>LOW MAINTENANCE</u>: Solar energy systems require only periodic inspection and occasional maintenance.
- ➤ <u>SAFE</u>: The systems do not require the use of combustible fuels and are safe when properly designed and installed.
- ➤ <u>INDEPENDENT</u>: Many solar energy users cite independence from utilities as a primary motivation for installing solar systems.



# Qualification Criteria for MSR Initiative Certification

The following systems will meet the Million Solar Roofs Initiative qualifications:

### Solar Thermal Water Heating Systems:

- -Residental domestic systems must be a minimum of 1.0 kW equivalent, or 20 square feet of collector area.
- -Residental swimming pool heating systems must be a minimum of 100 square feet of collector area.-



Commerical domestic systems must be a minimum of 2.0 kW, or 40 square feet of collector area.

-Commerical swimming pool heating systems must be a minimum of 400 square feet of collector area.

### Solar Thermal Space Heating Systems:

-Heating systems must be a minimum of 4.0 kw, or 100 squrare feet of collector area.

#### Photovoltaic (PV):

- -Residental systems must be a minimum of 0.5 kW.
- -School and church systems must be a minimum of 1.0 kW. -Commerical systems must be a minimum of 2.0 kW.



## New Solar Program Offered by the SCEO

### Program Overview:

The SC Energy Office announces the Public Building Solar Initiative, to demonstrate solar water heating technical and economic efficiency in South Carolina's public facilities. The purposes are:

- Save money for taxpayer-supported entities;
- Publicize economics, technology and operations experiences, in order to cause spin-off of many more installations;
- Establish core foundation of technical expertise for installation, operation and maintenance of solar water heating systems in South Carolina;
- Put state government on the leading edge as a model for energy efficiency;
- Identify and overcome obstacles to use of solar water heating in South Carolina; and
- Determine extent to which the SC Energy Office should invest future human and financial resources in promotion of solar water heating.

### Eligibility and Funding:

Eligible institutions are state agencies, public colleges and universities, public school districts, and local governments.

Eligible projects are projects that demonstrate the cost-effectiveness of solar water heating in one of the following types of facilities:

- Publicly-owned residence (2 grants);
- Facility with kitchen hot water needs (1 grant);
- Facility with shower and bath hot water needs (1 grant);
- Facility with laundry hot water needs (1 grant);
- Facility with swimming pool needs (1 grant).

Applicants must document a projected energy cost savings payback of eight years or less.

Grants are awarded for 75 percent of the cost of installing a solar water heating system and purchasing a service contract, up to a maximum of \$25,000.

For information visit the web site: <a href="https://www.energy.sc.gov/Renewable%20energy/sc\_solarroofs/solarinitiative.htm">www.energy.sc.gov/Renewable%20energy/sc\_solarroofs/solarinitiative.htm</a>





### Members Include:

- Educators
- Architects
- Builders
- Government officials
- Solar business owners
- Concerned citizens and consumers

For more information on the SC MSR Initiative Partnership, becoming a member, or having your solar installation counted in the Million Solar Roofs Initiative, please contact:

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## The South Carolina Million Solar Roofs Initiative Partnership

